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Search History

STN

(HCAPLUS, INSPEC, JAPIO, USPATFULL, INPADOC)  
6/21/06

(FILE 'HOME' ENTERED AT 08:44:29 ON 21 JUN 2006)

FILE 'HCAPLUS, INSPEC, JAPIO, USPATFULL, USPAT2, INPADOC' ENTERED AT  
08:45:57 ON 21 JUN 2006

L1 2580 S (SI OR SILICON) (8A) (MONO(W) CRYSTAL? (4A) ROD# OR MONO(W) CRYSTAL  
L2 628922 S (CONTROL? OR ALTER? OR MANIPULAT? OR VARY?) (8A) (TEMPERATURE#)  
L3 1040 S (DETECT?) (10A) (CHANG? (6A) DIAMETER)  
L4 477473 S (HEATER#)  
L5 883 S (DETECT?) (8A) (PULL? (6A) RATE# OR PULL? (6A) SPEED#)  
L6 34566 S (PID)  
L7 6082677 S (PLURAL? OR MULTIP?)  
L8 0 S L1 AND L2 AND L3 AND L4 AND L5  
L9 2 S L1 AND L2 AND L5  
L10 0 S L1 AND L2 AND L3  
L11 0 S L1 AND L3  
L12 77 S (DETECT?) (10A) (CHANG? (10A) DIAMETER (8A) ROD# OR CHANG? (8A) DIAME

=> d 19 1-2 abs,bib

L9 ANSWER 1 OF 2 USPATFULL on STN

AB An SOI wafer in which a base wafer and a bond wafer respectively consisting of silicon single crystal are bonded via an oxide film, and then the bond wafer is thinned to form a silicon active layer, wherein the base wafer is formed of silicon single crystal grown by Czochralski method, and the whole surface of the base wafer is within N region outside OSF region and doesn't include a defect region detected by Cu deposition method, or the whole surface of the base wafer is within a region outside OSF region, doesn't include a defect region detected by Cu deposition method, and includes I region containing dislocation cluster due to interstitial silicon. Thereby, there is provided an SOI wafer that retains high insulating properties and has an excellent electrical reliability in device fabrication even in the case of forming an extremely thin interlevel dielectric oxide film with, for example, a thickness of 100 nm or less.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 2006:135027 USPATFULL

TI Soi wafer and production method therefor

IN Sakurada, Masahiro, Fukushima, JAPAN

Mitamura, Nobuaki, Fukushima, JAPAN

Fusegawa, Izumi, Fukushima, JAPAN

PA SHIN-ETSU HANDOTAI CO., LTD., TOKYO, JAPAN (non-U.S. corporation)

PI US 2006113594 A1 20060601

AI US 2004-542376 A1 20040122 (10)

WO 2004-JP547 20040122

20050714 PCT 371 date

PRAI JP 2003-15396 20030123

JP 2003-15072 20030123

DT Utility

FS APPLICATION

LREP OLIFF & BERRIDGE, PLC, P.O. BOX 19928, ALEXANDRIA, VA, 22320, US

CLMN Number of Claims: 11

ECL Exemplary Claim: 1-6

DRWN 12 Drawing Page(s)

LN.CNT 1034

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 2 OF 2 USPATFULL on STN

AB A monitor wafer used to determine the cleanliness of a wafer fabrication environment requires a surface having a minimum of light scattering anomalies so that contamination deposited by the environment is not confused with light scattering anomalies initially on the monitor wafers. In the present invention, ingots of a single-crystal semiconductor are grown at a reduced pull rate and wafers produced from the ingot are annealed within a preferred temperature range that varies with the pull rate to produce wafers having reduced light-scattering

anomalies on their surfaces. The number of light-scattering anomalies increases at a slower rate upon repetitive cleaning cycles than does the number of light-scattering anomalies of prior art wafers.

AN 97:40695 USPATFULL  
TI Method for producing semiconductor wafers with low light scattering anomalies  
IN Wijaranakula, Witawat, Vancouver, WA, United States  
Archer, Sandra A., Portland, OR, United States  
Gupta, Dinesh C., Vancouver, WA, United States  
PA Seh America, Inc., Vancouver, WA, United States (U.S. corporation)  
PI US 5629216 19970513  
AI US 1996-607626 19960227 (8)  
RLI Continuation of Ser. No. US 1995-385735, filed on 8 Feb 1995, now abandoned which is a continuation of Ser. No. US 1994-269062, filed on 30 Jun 1994, now abandoned  
DT Utility  
FS Granted  
EXNAM Primary Examiner: Bowers, Jr., Charles L.; Assistant Examiner: Radomsky, Leon  
LREP Loeb & Loeb LLP  
CLMN Number of Claims: 12  
ECL Exemplary Claim: 1  
DRWN 3 Drawing Figure(s); 3 Drawing Page(s)  
LN.CNT 421

=>

=> d 118 1-18 abs,bib

L18 ANSWER 1 OF 18 USPATFULL on STN

AB An in situ process for treating a hydrocarbon containing formation is provided. The process may include providing heat from one or more heaters to at least a portion of the formation. The heat may be allowed to transfer from the reaction zone to a part of the formation such that heat from one or more heaters pyrolyzes at least some hydrocarbons within the part of the formation. A blending agent may be produced from the part of the formation, wherein a mixture produced with the blending agent has at least one selected property.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 2004:54723 USPATFULL

TI In situ production of a blending agent from a hydrocarbon containing formation

IN Wellington, Scott Lee, Bellaire, TX, UNITED STATES

Karanikas, John Michael, Houston, TX, UNITED STATES

Maher, Kevin Albert, Bellaire, TX, UNITED STATES

Sumnu-Dindoruk, Meliha Deniz, Houston, TX, UNITED STATES

Vinegar, Harold J., Bellaire, TX, UNITED STATES

PI US 2004040715 A1 20040304

AI US 2002-279227 A1 20021024 (10)

PRAI US 2001-334568P 20011024 (60)

US 2001-337136P 20011024 (60)

US 2002-374970P 20020424 (60)

US 2002-374995P 20020424 (60)

DT Utility

FS APPLICATION

LREP DEL CHRISTENSEN, SHELL OIL COMPANY, P.O. BOX 2463, HOUSTON, TX, 77252-2463

CLMN Number of Claims: 8960

ECL Exemplary Claim: 1

DRWN 440 Drawing Page(s)

LN.CNT 64262

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 2 OF 18 USPATFULL on STN

AB In an embodiment, a system may be used to heat a hydrocarbon containing formation. The system may include a conduit placed within an opening in the formation. A conductor may be placed within the conduit. The conductor may provide heat to a portion of the formation. In some embodiments, an electrically conductive material may be coupled to a portion of the conductor in the overburden. The electrically conductive material may lower the electrical resistance of the portion of the conductor in the overburden. Lowering the electrical resistance of the portion of the conductor in the overburden may reduce the heat output of the portion in the overburden. The system may allow heat to transfer from the conductor to a section of the formation.

AN 2004:28518 USPATFULL

TI In situ recovery from a hydrocarbon containing formation using conductor-in-conduit heat sources with an electrically conductive material in the overburden

IN Vinegar, Harold J., Bellaire, TX, UNITED STATES

Bass, Ronald Marshall, Houston, TX, UNITED STATES

PI US 2004020642 A1 20040205

AI US 2002-279288 A1 20021024 (10)

PRAI US 2001-334568P 20011024 (60)

US 2001-337136P 20011024 (60)

US 2002-374970P 20020424 (60)

US 2002-374995P 20020424 (60)

DT Utility

FS APPLICATION

LREP DEL CHRISTENSEN, SHELL OIL COMPANY, P.O. BOX 2463, HOUSTON, TX, 77252-2463

CLMN Number of Claims: 8949

ECL Exemplary Claim: 1

L18 ANSWER 3 OF 18 USPATFULL on STN

AB A method for treating lean and rich zones of a hydrocarbon containing formation is provided. In one embodiment, heat from one or more heaters may be provided to at least a portion of the formation. Heat may be allowed to transfer from the one or more heaters to a first part of the formation. In certain embodiments, the heat from the one or more heaters may pyrolyze at least some hydrocarbons within the first part of the formation. The method may include producing a mixture through a second part of the formation. In some embodiments, the produced mixture may include at least some pyrolyzed hydrocarbons from the first part of the formation. In an embodiment, the second part of the formation may have a higher permeability than the first part of the formation.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 2003:292384 USPATFULL

TI In situ recovery from lean and rich zones in a hydrocarbon containing formation

IN Wellington, Scott Lee, Bellaire, TX, UNITED STATES

Rouffignac, Eric Pierre de, Houston, TX, UNITED STATES

Vinegar, Harold J., Bellaire, TX, UNITED STATES

PI US 2003205378 A1 20031106

AI US 2002-279222 A1 20021024 (10)

PRAI US 2001-334568P 20011024 (60)

US 2001-337136P 20011024 (60)

US 2002-374970P 20020424 (60)

US 2002-374995P 20020424 (60)

DT Utility

FS APPLICATION

LREP DEL CHRISTENSEN, SHELL OIL COMPANY, P.O. BOX 2463, HOUSTON, TX, 77252-2463

CLMN Number of Claims: 8958

ECL Exemplary Claim: 1

DRWN 440 Drawing Page(s)

LN.CNT 64278

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 4 OF 18 USPATFULL on STN

AB Systems and methods of using a computer system to simulate a process for in situ treatment of a hydrocarbon containing formation are provided. The in situ process may include providing heat from one or more heat sources to at least one portion of the formation. The in situ process may, in some embodiments, include allowing the heat to transfer from the one or more heat sources to a selected section of the formation. In some embodiments, the method may include operating the in situ process using one or more operating parameters. At least one operating parameter of the in situ process may be provided to the computer system. In certain embodiments, at least one parameter may be used with a simulation method and the computer system to provide assessed information about the in situ process.

AN 2003:286356 USPATFULL

TI In situ recovery from a hydrocarbon containing formation using one or more simulations

IN Karanikas, John Michael, Houston, TX, UNITED STATES

Berchenko, Ilya Emil, Friendswood, TX, UNITED STATES

Rouffignac, Eric Pierre de, Houston, TX, UNITED STATES

Ginestra, Jean-Charles, Richmond, TX, UNITED STATES

Hansen, Kirk Samuel, Houston, TX, UNITED STATES

Schoeling, Lanny Gene, Katy, TX, UNITED STATES

Shahin, Gordon Thomas, JR., Bellaire, TX, UNITED STATES

Sumnu-Dindoruk, Meliha Deniz, Houston, TX, UNITED STATES

Vinegar, Harold J., Bellaire, TX, UNITED STATES

PI US 2003201098 A1 20031030

AI US 2002-279224 A1 20021024 (10)

PRAI US 2001-334568P 20011024 (60)

US 2001-337136P 20011024 (60)

US 2002-374970P 20020424 (60)  
US 2002-374995P 20020424 (60)  
DT Utility  
FS APPLICATION  
LREP DEL CHRISTENSEN, SHELL OIL COMPANY, P.O. BOX 2463, HOUSTON, TX,  
77252-2463  
CLMN Number of Claims: 8961  
ECL Exemplary Claim: 1  
DRWN 440 Drawing Page(s)  
LN.CNT 64206

L18 ANSWER 5 OF 18 USPATFULL on STN

AB A method for treating a hydrocarbon containing formation is provided. In one embodiment, heat from one or more heaters may be provided to at least a portion of the formation. Heat may be allowed to transfer from the one or more heaters to at least a part of the formation. In certain embodiments, the heat from the one or more heaters may pyrolyze at least some hydrocarbons in the formation. In an embodiment, a first fluid may be introduced into at least a portion of the formation. The portion may have previously undergone an in situ conversion process. A mixture of the first fluid and a second fluid may be produced from the formation. Such mixture may, in some embodiments, be treated or burned.

CAS INDEXING IS AVAILABLE FOR THIS PATENT

AN 2003:280476 USPATFULL  
TI Treatment of a hydrocarbon containing formation after heating  
IN Vinegar, Harold J., Bellaire, TX, UNITED STATES  
Rouffignac, Eric Pierre de, Houston, TX, UNITED STATES  
Madgavkar, Ajay Madhav, Katy, TX, UNITED STATES  
Maher, Kevin Albert, Bellaire, TX, UNITED STATES  
McKinzie,, Billy John, II, Houston, TX, UNITED STATES  
Palfreyman, Bruce Donald, Houston, TX, UNITED STATES  
Ryan, Robert Charles, Houston, TX, UNITED STATES  
Stegemeier, George Leo, Houston, TX, UNITED STATES  
Ward, John Michael, Katy, TX, UNITED STATES  
Wellington, Scott Lee, Bellaire, TX, UNITED STATES

PI US 2003196810 A1 20031023  
AI US 2002-279294 A1 20021024 (10)  
PRAI US 2001-334568P 20011024 (60)  
US 2001-337136P 20011024 (60)  
US 2002-374970P 20020424 (60)  
US 2002-374995P 20020424 (60)

DT Utility  
FS APPLICATION  
LREP DEL CHRISTENSEN, SHELL OIL COMPANY, P.O. BOX 2463, HOUSTON, TX,  
77252-2463  
CLMN Number of Claims: 8961  
ECL Exemplary Claim: 1  
DRWN 440 Drawing Page(s)  
LN.CNT 64261

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 6 OF 18 USPATFULL on STN

AB A process for producing hydrocarbons through a heater wellbore positioned in a hydrocarbon containing formation. The in situ treatment process may include providing heat from one or more heaters to at least a portion of the formation. The heat may be allowed, in some embodiments, to transfer from one or more heaters to a selected section of the formation. Heat that is allowed to transfer to the selected section may pyrolyze at least some of the hydrocarbons within the selected section. The process may include, in some embodiments, selectively limiting a temperature proximate a selected portion of a heater wellbore to inhibit coke formation at or near the selected portion. In some embodiments fluids may be produced at certain locations of a heater wellbore such that coke formation is inhibited.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 2003:280467 USPATFULL  
TI In situ thermal processing of a hydrocarbon containing formation via

IN backproducing through a heater well  
Vinegar, Harold J., Bellaire, TX, UNITED STATES  
Rouffignac, Eric Pierre de, Den Haag, NETHERLANDS  
Karanikas, John Michael, Houston, TX, UNITED STATES  
Wellington, Scott Lee, Bellaire, TX, UNITED STATES  
PI US 2003196801 A1 20031023  
US 6932155 B2 20050823  
AI US 2002-279221 A1 20021024 (10)  
PRAI US 2001-334568P 20011024 (60)  
US 2001-337136P 20011024 (60)  
US 2002-374970P 20020424 (60)  
US 2002-374995P 20020424 (60)

DT Utility

FS APPLICATION

LREP DEL CHRISTENSEN, SHELL OIL COMPANY, P.O. BOX 2463, HOUSTON, TX,  
77252-2463

CLMN Number of Claims: 8959

ECL Exemplary Claim: 1

DRWN 440 Drawing Page(s)

LN.CNT 64277

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 7 OF 18 USPATFULL on STN

AB An in situ treatment process may include providing heat from one or more heaters to at least a portion of the formation. The heat may be allowed to transfer from the one or more heaters to a part of the formation. A fluid may be produced from at least part of the formation. Heat and/or other products in or from fluids produced from the formation may be used for hydrotreating.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 2003:280455 USPATFULL

TI In situ thermal processing of a hydrocarbon containing formation and upgrading of produced fluids prior to further treatment

IN Wellington, Scott Lee, Bellaire, TX, UNITED STATES

Madgavkar, Ajay Madhav, Katy, TX, UNITED STATES

Ryan, Robert Charles, Houston, TX, UNITED STATES

PI US 2003196789 A1 20031023

AI US 2002-279226 A1 20021024 (10)

PRAI US 2001-334568P 20011024 (60)

US 2001-337136P 20011024 (60)

US 2002-374970P 20020424 (60)

US 2002-374995P 20020424 (60)

DT Utility

FS APPLICATION

LREP DEL CHRISTENSEN, SHELL OIL COMPANY, P.O. BOX 2463, HOUSTON, TX,  
77252-2463

CLMN Number of Claims: 8938

ECL Exemplary Claim: 1

DRWN 440 Drawing Page(s)

LN.CNT 64174

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 8 OF 18 USPATFULL on STN

AB A method for treating a hydrocarbon containing formation is provided. In one embodiment, heat from one or more heaters may be provided to at least a portion of the formation. Heat may be allowed to transfer from the one or more heaters to at least a part of the formation. In certain embodiments, the heat from the one or more heaters may pyrolyze at least some hydrocarbons within the formation. In an embodiment, a first fluid may be introduced into at least a portion of the formation. The portion may have previously undergone an in situ conversion process. A mixture of the first fluid and a second fluid (or a second compound) may be produced from the formation. In some embodiments, a first fluid may be provided to the formation prior to pyrolyzing hydrocarbons in the formation, and a second fluid (or a second compound) may be produced prior to pyrolyzing hydrocarbons in the formation. In some embodiments the second fluid or second compound include minerals, metals, salts, or other compounds that may be recovered.

AN 2003:280454 USPATFULL  
TI Producing hydrocarbons and non-hydrocarbon containing materials when  
IN treating a hydrocarbon containing formation  
Vinegar, Harold J., Bellaire, TX, UNITED STATES  
Rouffignac, Eric Pierre de, Den Haag, NETHERLANDS  
Maher, Kevin Albert, Bellaire, TX, UNITED STATES  
Schoeling, Lanny Gene, Katy, TX, UNITED STATES  
Wellington, Scott Lee, Bellaire, TX, UNITED STATES  
PI US 2003196788 A1 20031023  
AI US 2002-279229 A1 20021024 (10)  
PRAI US 2001-334568P 20011024 (60)  
US 2001-337136P 20011024 (60)  
US 2002-374970P 20020424 (60)  
US 2002-374995P 20020424 (60)  
DT Utility  
FS APPLICATION  
LREP DEL CHRISTENSEN, SHELL OIL COMPANY, P.O. BOX 2463, HOUSTON, TX,  
77252-2463  
CLMN Number of Claims: 8932  
ECL Exemplary Claim: 1  
DRWN 440 Drawing Page(s)  
LN.CNT 64202

L18 ANSWER 9 OF 18 USPATFULL on STN

AB A process for utilizing the heat from fluids produced from a hydrocarbon containing formation, which has been treated in situ. The in situ treatment process may include providing heat from one or more heaters to at least a portion of the formation. The heat may be allowed to transfer from one or more heaters to a part of the formation such that heat from the one or more heaters pyrolyzes at least some hydrocarbons within the part of the formation. Hydrocarbons may be produced from the formation. In an embodiment, heat from the produced fluids may be used for other processes. Examples of other processes may include, but are not limited to, hydrotreating, separations, steam cracking, olefin production, etc.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 2003:274680 USPATFULL  
TI In situ thermal processing of a hydrocarbon containing formation to  
produce heated fluids  
IN Wellington, Scott Lee, Bellaire, TX, UNITED STATES  
PI US 2003192693 A1 20031016  
AI US 2002-279290 A1 20021024 (10)  
PRAI US 2001-334568P 20011024 (60)  
US 2001-337136P 20011024 (60)  
US 2002-374970P 20020424 (60)  
US 2002-374995P 20020424 (60)  
DT Utility  
FS APPLICATION  
LREP DEL CHRISTENSEN, SHELL OIL COMPANY, P.O. BOX 2463, HOUSTON, TX,  
77252-2463  
CLMN Number of Claims: 8951  
ECL Exemplary Claim: 1  
DRWN 440 Drawing Page(s)  
LN.CNT 64242

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 10 OF 18 USPATFULL on STN

AB A method is described for inhibiting migration of fluids into and/or out of a treatment area undergoing an in situ conversion process. Barriers in the formation proximate a treatment area may be used to inhibit migration of fluids. Inhibition of migration of fluids may occur before, during, and/or after an in situ treatment process. For example, migration of fluids may be inhibited while heat is provided from heaters to at least a portion of the treatment area. Barriers may include naturally occurring portions (e.g., overburden, and/or underburden) and/or installed portions.

AN 2003:274678 USPATFULL

TI In situ recovery from a hydrocarbon containing formation using barriers  
IN Vinegar, Harold J., Bellaire, TX, UNITED STATES  
Aymond, Dannie Antoine, JR., Houston, TX, UNITED STATES  
Maher, Kevin Albert, Bellaire, TX, UNITED STATES  
McKinzie,, Billy J., II, Houston, TX, UNITED STATES  
Palfreyman, Bruce Donald, Houston, TX, UNITED STATES  
Stegemeier, George Leo, Houston, TX, UNITED STATES  
Ward, John Michael, Katy, TX, UNITED STATES  
Watkins, Ronnie Wade, Cypress, TX, UNITED STATES  
Wellington, Scott Lee, Bellaire, TX, UNITED STATES

PI US 2003192691 A1 20031016  
AI US 2002-279291 A1 20021024 (10)  
PRAI US 2001-334568P 20011024 (60)  
US 2001-337136P 20011024 (60)  
US 2002-374970P 20020424 (60)  
US 2002-374995P 20020424 (60)

DT Utility  
FS APPLICATION

LREP DEL CHRISTENSEN, SHELL OIL COMPANY, P.O. BOX 2463, HOUSTON, TX,  
77252-2463

CLMN Number of Claims: 8958

ECL Exemplary Claim: 1

DRWN 440 Drawing Page(s)

LN.CNT 64262

L18 ANSWER 11 OF 18 USPATFULL on STN

AB In an embodiment, a method for heating a hydrocarbon containing formation may include providing heat from one or more heaters to an opening in the formation. A first end of the opening may contact the earth's surface at a first location and a second end of the opening may contact the earth's surface at a second location. The heat may be allowed to transfer from the opening to at least a part of the formation. The transferred heat may pyrolyze at least some hydrocarbons in the formation. In certain embodiments, providing the heat to the opening may include providing heat, heated materials, and/or oxidation products from at least one heater to the opening.

AN 2003:262390 USPATFULL

TI Methods and systems for heating a hydrocarbon containing formation in situ with an opening contacting the earth's surface at two locations

IN Veenstra, Peter, Sugarland, TX, UNITED STATES

de Rouffignac, Eric Pierreus, Houston, TX, UNITED STATES

Karanikas, John Michael, Houston, TX, UNITED STATES

Vinegar, Harold J., Bellaire, TX, UNITED STATES

Wellington, Scott Lee, Bellaire, TX, UNITED STATES

PI US 2003183390 A1 20031002

US 7063145 B2 20060620

AI US 2002-279292 A1 20021024 (10)

PRAI US 2001-334568P 20011024 (60)

US 2001-337136P 20011024 (60)

US 2002-374970P 20020424 (60)

US 2002-374995P 20020424 (60)

DT Utility

FS APPLICATION

LREP DEL CHRISTENSEN, SHELL OIL COMPANY, P.O. BOX 2463, HOUSTON, TX,  
77252-2463

CLMN Number of Claims: 8960

ECL Exemplary Claim: 1

DRWN 440 Drawing Page(s)

LN.CNT 64277

L18 ANSWER 12 OF 18 USPATFULL on STN

AB In an embodiment, a method of treating a kerogen and liquid hydrocarbon containing formation in situ may include providing heat from one or more heat sources to at least a portion of the formation. Heat may be allowed to transfer from the one or more heat sources to a part of the formation. In some embodiments, at least a portion of liquid hydrocarbons in the part may be mobilized. At least a portion of kerogen in the part may be pyrolyzed. In certain embodiments, a pressure within

at least a part of the formation may be controlled. The pressure may be controlled to be at least about 2.0 bars absolute. A mixture may be produced from the formation.

AN 2003:255151 USPATFULL  
TI In situ recovery from a kerogen and liquid hydrocarbon containing formation  
IN Maher, Kevin Albert, Bellaire, TX, UNITED STATES  
Berchenko, Ilya Emil, Friendswood, TX, UNITED STATES  
Rouffignac, Eric Pierre de, Houston, TX, UNITED STATES  
Karanikas, John Michael, Houston, TX, UNITED STATES  
Vinegar, Harold J., Bellaire, TX, UNITED STATES  
Wellington, Scott Lee, Bellaire, TX, UNITED STATES  
Zhang, Etuan, Houston, TX, UNITED STATES  
PI US 2003178191 A1 20030925  
US 7011154 B2 20060314  
AI US 2002-279287 A1 20021024 (10)  
PRAI US 2001-337427P 20011024 (60)  
US 2001-337405P 20011024 (60)  
US 2002-375043P 20020424 (60)  
US 2002-374999P 20020424 (60)  
DT Utility  
FS APPLICATION  
LREP DEL CHRISTENSEN, SHELL OIL COMPANY, P.O. BOX 2463, HOUSTON, TX,  
77252-2463  
CLMN Number of Claims: 8600  
ECL Exemplary Claim: 1  
DRWN 289 Drawing Page(s)  
LN.CNT 58114

L18 ANSWER 13 OF 18 USPATFULL on STN

AB A method for treating a coal formation to alter properties of coal in the formation is provided. In one embodiment, heat from one or more heaters may be provided to at least a portion of the formation. Heat may be allowed to transfer from the one or more heaters to a part of the formation. In certain embodiments, the heat from the one or more heaters may pyrolyze at least some hydrocarbons within the part of the formation. The method may include producing a fluid from the formation. In some embodiments, the produced fluid may include at least some pyrolyzed hydrocarbons from the formation. In an embodiment, after at least some coal has been treated at least a portion of such coal may be produced from the formation.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 2003:248308 USPATFULL  
TI Upgrading and mining of coal  
IN Vinegar, Harold J., Bellaire, TX, UNITED STATES  
Maher, Kevin Albert, Bellaire, TX, UNITED STATES  
Wellington, Scott Lee, Bellaire, TX, UNITED STATES  
PI US 2003173085 A1 20030918  
US 6969123 B2 20051129  
AI US 2002-279286 A1 20021024 (10)  
PRAI US 2001-338648P 20011024 (60)  
US 2001-337137P 20011024 (60)  
US 2002-375000P 20020424 (60)  
US 2002-374996P 20020424 (60)  
DT Utility  
FS APPLICATION  
LREP DEL CHRISTENSEN, SHELL OIL COMPANY, P.O. BOX 2463, HOUSTON, TX,  
77252-2463  
CLMN Number of Claims: 8593  
ECL Exemplary Claim: 1  
DRWN 305 Drawing Page(s)  
LN.CNT 57197

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 14 OF 18 USPATFULL on STN

AB An in situ process for treating a diatomite formation is provided. The process may include providing heat from one or more heaters to at least

a portion of the formation. The heat may be allowed to transfer from the one or more heaters to a part of the formation such that heat from the one or more heat sources pyrolyzes at least some hydrocarbons within the part. Hydrocarbons may be produced from the formation.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 2003:248305 USPATFULL  
TI In situ thermal processing of a heavy oil diatomite formation  
IN Vinegar, Harold J., Bellaire, TX, UNITED STATES  
Berchenko, Ilya Emil, Friendswood, TX, UNITED STATES  
Rouffignac, Eric Pierre de, Den Haag, NETHERLANDS  
Karanikas, John Michael, Houston, TX, UNITED STATES  
Maher, Kevin Albert, Bellaire, TX, UNITED STATES  
Stegemeier, George Leo, Houston, TX, UNITED STATES  
Shahin,, Gordon Thomas, JR., Bellaire, TX, UNITED STATES  
Wellington, Scott Lee, Bellaire, TX, UNITED STATES

PI US 2003173082 A1 20030918  
AI US 2002-279293 A1 20021024 (10)  
PRAI US 2001-337476P 20011024 (60)  
US 2001-338788P 20011024 (60)  
US 2002-375011P 20020424 (60)  
US 2002-374997P 20020424 (60)

DT Utility  
FS APPLICATION  
LREP DEL CHRISTENSEN, SHELL OIL COMPANY, P.O. BOX 2463, HOUSTON, TX,  
77252-2463

CLMN Number of Claims: 8354

ECL Exemplary Claim: 1

DRWN 276 Drawing Page(s)

LN.CNT 56271

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 15 OF 18 USPATFULL on STN

AB An in situ process for treating an oil containing formation is provided. The process may include providing heat from one or more heaters to at least a portion of the formation. The heat may be allowed to transfer from the one or more heaters to a part of the formation such that heat from the one or more heat sources pyrolyzes at least some hydrocarbons within the part. Hydrocarbons may be produced from the formation.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 2003:248304 USPATFULL  
TI In situ thermal processing of an oil reservoir formation  
IN Vinegar, Harold J., Bellaire, TX, UNITED STATES  
Berchenko, Ilya Emil, Friendswood, TX, UNITED STATES  
de Rouffignac, Eric P., Houston, TX, UNITED STATES  
Fowler, Thomas David, Houston, TX, UNITED STATES  
Ryan, Robert Charles, Houston, TX, UNITED STATES  
Wellington, Scott Lee, Bellaire, TX, UNITED STATES  
Zhang, Etuan, Houston, TX, UNITED STATES

PI US 2003173081 A1 20030918  
AI US 2002-279230 A1 20021024 (10)  
PRAI US 2001-338625P 20011024 (60)  
US 2001-338695P 20011024 (60)  
US 2002-374939P 20020424 (60)  
US 2002-374998P 20020424 (60)

DT Utility  
FS APPLICATION  
LREP DEL CHRISTENSEN, SHELL OIL COMPANY, P.O. BOX 2463, HOUSTON, TX,  
77252-2463

CLMN Number of Claims: 7976

ECL Exemplary Claim: 1

DRWN 278 Drawing Page(s)

LN.CNT 54985

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 16 OF 18 USPATFULL on STN

AB A method for forming one or more openings in a hydrocarbon containing formation is described. The method may include forming or providing a

first opening in the formation. A plurality of magnets may be provided into the first opening. The plurality of magnets may be positioned along a portion of the first opening. The plurality of magnets may produce a series of magnetic fields along the portion of the first opening. A second opening in the formation may be formed using magnetic tracking of the series of magnetic fields. The second opening may be spaced a desired distance from the first opening. Alternate embodiments include use of an energized conduit to create a magnetic field. Such energized conduit can be used alone or with the plurality of magnets.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 2003:248295 USPATFULL

TI Forming openings in a hydrocarbon containing formation using magnetic tracking

IN Vinegar, Harold J., Bellaire, TX, UNITED STATES  
Harris, Christopher Kelvin, Houston, TX, UNITED STATES  
Hartmann, Robin Adrianus, Rijswijk, NETHERLANDS  
Pratt, Christopher Arnold, Cochrane, CANADA  
Lepper, Gordon Bruce, Calgary, CANADA

Wagner, Randolph Rogers, Houston, TX, UNITED STATES

PI US 2003173072 A1 20030918  
US 6991045 B2 20060131

AI US 2002-279289 A1 20021024 (10)

PRAI US 2001-334568P 20011024 (60)  
US 2001-337136P 20011024 (60)  
US 2002-374970P 20020424 (60)  
US 2002-374995P 20020424 (60)

DT Utility

FS APPLICATION

LREP DEL CHRISTENSEN, SHELL OIL COMPANY, P.O. BOX 2463, HOUSTON, TX,  
77252-2463

CLMN Number of Claims: 8962

ECL Exemplary Claim: 1

DRWN 441 Drawing Page(s)

LN.CNT 64274

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 17 OF 18 USPATFULL on STN

AB An in situ process for treating a tar sands formation is provided. The process may include providing heat from one or more heaters to at least a portion of the formation. The heat may be allowed to transfer from the one or more heaters to a part of the formation such that heat from the one or more heat sources pyrolyzes at least some hydrocarbons within the part. Hydrocarbons may be produced from the formation.

AN 2003:223310 USPATFULL

TI In situ thermal processing of a tar sands formation

IN Vinegar, Harold J., Bellaire, TX, UNITED STATES  
Rouffignac, Eric Pierre de, Den Haag, NETHERLANDS  
Karanikas, John Michael, Houston, TX, UNITED STATES  
Maher, Kevin Albert, Bellaire, TX, UNITED STATES  
Sumnu-Dindoruk, Meliha Deniz, Houston, TX, UNITED STATES  
Wellington, Scott Lee, Bellaire, TX, UNITED STATES  
Crane, Steven Dexter, Richardson, TX, UNITED STATES  
Messier, Margaret Ann, Calgary, CANADA  
Roberts, Bruce Edmunds, Calgary, CANADA

PI US 2003155111 A1 20030821

AI US 2002-279225 A1 20021024 (10)  
PRAI US 2001-337072P 20011024 (60)  
US 2001-337059P 20011024 (60)  
US 2002-375018P 20020424 (60)  
US 2002-375238P 20020424 (60)

DT Utility

FS APPLICATION

LREP DEL CHRISTENSEN, SHELL OIL COMPANY, P.O. BOX 2463, HOUSTON, TX,  
77252-2463

CLMN Number of Claims: 8319

ECL Exemplary Claim: 1

DRWN 372 Drawing Page(s)

L18 ANSWER 18 OF 18 USPATFULL on STN

AB A **crystal**-pulling apparatus incorporates a temperature sensor and an adjustable radiation shield. The temperature sensor measures temperatures of a melt surface adjacent to a solidification interface between a **crystal** and the melt. The radiation shield regulates radiational cooling of the melt. A control system adjusts the radiation shield in response to changes in the measured temperature of the melt for enhancing dislocation-free growth of the **crystal**.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 1998:47760 USPATFULL

TI **Temperature control** system for growing high-purity monocrystals

IN Boulaev, Anatoli S., Pittsford, NY, United States

PA General Signal Corporation, Stamford, CT, United States (U.S. corporation)

PI US 5746828 19980505

AI US 1996-587362 19960116 (8)

DT Utility

FS Granted

EXNAM Primary Examiner: Garrett, Felisa

LREP Eugene Stephens &amp; Associates

CLMN Number of Claims: 19

ECL Exemplary Claim: 1

DRWN 20 Drawing Figure(s); 9 Drawing Page(s)

LN.CNT 696

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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(FILE 'HOME' ENTERED AT 08:44:29 ON 21 JUN 2006)

FILE 'HCAPLUS, INSPEC, JAPIO, USPATFULL, USPAT2, INPADOC' ENTERED AT 08:45:57 ON 21 JUN 2006

L1 2580 S (SI OR SILICON) (8A) (MONO(W)CRYSTAL?(4A)ROD# OR MONO(W)CRYSTAL  
 L2 628922 S (CONTROL? OR ALTER? OR MANIPULAT? OR VARY?) (8A) (TEMPERATURE#)  
 L3 1040 S (DETECT?) (10A) (CHANG? (6A)DIAMETER)  
 L4 477473 S (HEATER#)  
 L5 883 S (DETECT?) (8A) (PULL? (6A)RATE# OR PULL? (6A)SPEED#)  
 L6 34566 S (PID)  
 L7 6082677 S (PLURAL? OR MULTIP?)  
 L8 0 S L1 AND L2 AND L3 AND L4 AND L5  
 L9 2 S L1 AND L2 AND L5  
 L10 0 S L1 AND L2 AND L3  
 L11 0 S L1 AND L3  
 L12 77 S (DETECT?) (10A) (CHANG? (10A)DIAMETER (8A)ROD# OR CHANG? (8A)DIAME  
 L13 0 S L1 AND L2 AND L3  
 L14 0 S L1 AND L2 AND L12  
 L15 144 S L2 AND L3  
 L16 20 S L2 AND L3 AND L5  
 L17 0 S L2 AND L3 AND L5 AND L6  
 L18 18 S L16 AND (CRYSTAL?)

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